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REMARKS

Claims 1, 7, and 10 are amended. Claims 2-4, 8, and 9 were previously canceled without prejudice or disclaimer. Claims 14-20 were previously withdrawn. Claims 1, 5-7, and 10-13 are pending. No new matter is added by these amendments. Applicant respectfully requests reconsideration and allowance of all claims in view of the amendments above and the remarks that follow.

Rejections under 35 U.S.C. 103

Claims 1, 6, 7, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as unpatentable over Vorbach (U.S. Patent No. 6,697,979), Kromer (U.S. PGPub 2004/0255099), and Shidla (US 2005/0055674). Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as unpatentable over Vorbach, Kromer, Shidla, and Zilka (U.S. PGPub 2003/0061383).

Applicant respectfully submits that the claims are patentable over the references because the references do not teach or suggest all of the elements in the claims, as further argued below. Claim 1 recites: "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence; and comparing a final result of the diagnostic instructions with a pre-computed result." Thus, claim 1 recites two results of the diagnostic instructions: an intermediate result and a final result. The intermediate result is saved if the diagnostic instructions partially complete while the final result is compared to the pre-computed result.

Vorbach does not teach or suggest "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result," as recited in claim 1 because Vorbach at column 5, lines 8-10, recites: "New test data can be loaded until the IDLE cycle is ended by the arrival of new data to be processed." Thus, once the

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Vorbach IDLE cycle is ended, Vorbach stops loading new test data and does not have any intermediate results to save.

Kromer does not teach or suggest "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence," as recited in claim 1 because the Kromer instructions at paragraphs [0032] through [0040] relied on by the Office Action are not diagnostic instructions and are not issued during cycles that would be idle, as recited in claim 1. Instead the Kromer instructions are a type of instruction that can cause register dependencies, as described at Kromer paragraph [0027]:

"Redirect logic circuit 210 detects several types of instructions that would ordinarily cause register dependencies, and corrects them by substituting register identifiers that provide the correct result."

Shidla does not teach or suggest "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence," as recited in claim 1 because Shidla does not teach or suggest an intermediate result since Shidla does not teach or suggest that its diagnostic operations are capable of partial completion. Instead, Shidla at [0027] states that "a comparison of the results from the execution of the diagnostic operation on that functional unit with the corresponding predetermined (known) result would be scheduled." Thus, Shidla only has one result, which is a complete result, and which Shidla schedules for comparison. Shidla's result is a complete result, and not a partial result, because Shidla schedules it for comparison, and no purpose would exist for comparing a partial result. Thus, Shidla does not teach or suggest partial completion of diagnostic instructions or saving an intermediate result as a result of partial completion, as recited in claim 1.

Zilka does not teach or suggest "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence," as recited in claim 1, because Zilka does not perform diagnostic instructions during idle cycles; instead Zilka powers down

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the idle circuits, as described at Zilka paragraph [0025]: "The power control mechanism 216 of this embodiment can predict which circuits will be idle for a period and can selectively power down those circuits and units." Thus, Zilka teaches away from "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence," as recited in claim 1.

Thus, the references, alone or in combination, do not teach or suggest "if the diagnostic instructions partially complete during the cycles that would be idle, saving an intermediate result and retrieving the intermediate result on a next idle cycle sequence," as recited in claim 1

Claims 7 and 10 include similar elements as argued above for claim 1 and are patentable over the references for similar reasons. Claims 5, 6, and 11-13 are dependent on claims 1 and 10, respectively, and are patentable for the reasons argued above, plus the elements in the claims.

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Conclusion

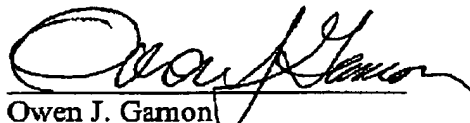
Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is requested. The Examiner is invited to telephone Applicant's attorney (651-645-7135) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 09-0465.

Respectfully submitted,

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By their Representative,



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CERTIFICATE UNDER 37 CFR 1.8: I hereby certify that this correspondence is being transmitted via facsimile to the Commissioner for Patents, 571-273-8300, on March 8, 2007.

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Signature

